Restricted Circulation

This paper is not an official document; it is for information only and reference cannot be made to it in any printed publication without the permission of the author.

AGRICULTURAL MEMORANDUM NO 487

AREAS WITH A HIGH SENSITIVITY TO DRAINAGE IMPROVEMENT

L P Smith

The drainage sensitivity index is the part of the percentage in yield loss due to late sowing which will be recovered if the drainage is improved by one class (D to C, C to B or B to A).

This index varies with the work schedule of 7, 10 or 14 suitable days.

The stations (5 out of 24) with the highest indices, and hence the areas likely to obtain the best value in regard to spring sowing dates by improved drainage, are:-

Sprowston and Sandringham in North Norfolk
Cranwell in Lincolnshire
Bishops Cannings in Wiltshire and
Melton Mowbray in Leicestershire

As a mean value the reductions in yield loss, and hence gain in yield, are:

For a	7 day schedule	2½%
	10 day schedule	3½%
	14 day schedule	5% for a one-step drainage improvement.

Full details are given in the Table.

Any comments or suggestions on this paper should be referred to the author.

Meteorological Office
Bracknell
August 1972

Areas with a High Sensitivity to Drainage Improvement

7-day Schedules

Percentage loss of Yield (1949-68)

		Drainage Standard				Index
		A	B	C	D	
Sprowston	(Norfolk)	0.8	1.9	5.3	8.4	2.5
Sandringham	(Norfolk)	1.3	2.7	5.5	8.4	1.9
Cranwell	(Lincs)	1.7	3.3	6.5	8.8	2.4
Bishops Cannings	(Wilts)	1.8	4.1	8.0	9.4	2.7
Melton Mowbray	(Leics)	1.6	3.5	5.9	7.6	2.0
MEAN		1.42	3.10	6.24	8.52	2.44

10-day Schedules

Sprowston		2.6	4.7	8.9	13.7	4.7
Sandringham		3.0	5.5	10.5	14.9	4.1
Cranwell		3.3	5.9	8.3	14.1	3.5
Bishops Cannings		3.3	6.1	10.5	12.6	3.2
Melton Mowbray		3.0	5.3	8.8	11.4	2.9
MEAN		3.04	5.50	9.40	13.34	3.48

14-day Schedules

Sprowston		5.8	8.9	15.6	22.7	5.7
Sandringham		6.5	10.5	17.4	23.4	5.8
Cranwell		6.1	10.4	16.4	19.9	4.7
Bishops Cannings		5.6	9.4	14.4	18.3	4.3
Melton Mowbray		5.1	8.4	14.2	18.3	4.5
MEAN		5.82	9.52	15.60	20.52	4.98